

Abstract

Disclosed are a method and an apparatus for forming an oxide coating film with excellent corrosion resistance and adhesiveness on a cathode made of a metal plate by a simple process at low cost. A direct current voltage is applied between an anode (12) and a cathode (13) in an electrolyte solution which cathode (13) is made of a metal plate to be coated with oxide and arranged opposite to the anode (12), while supplying oxygen or a gas containing oxygen into the electrolyte solution, so that the metal plate cathode (13) is coated with oxide, thereby being formed into a oxide-coated metal plate.